

Catalogue of the Coleoptera of Fort Tejon, California.

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The present paper contains a list of the species of Coleoptera collected at Fort Tejon, during 1857 and 1858, by the indefatigable naturalist, Mr. John Xantus, (de Vésey), which were found to be remarkable in many respects. The number of species obtained (147) is very small for the time during which they were collected, and the proportion of new species (52) is very large. These facts are in accordance with the general principles of the geographical distribution of organized beings in Pacific North America, stated by me at the meeting of the American Association for the Advancement of Science, held at Albany in 1851. Several genera not previously known to science are herein described, one of which, *Aplastus*, completes beautifully the series between normal *Elateridae* and *Cebrio*, previously indicated by *Plastocerus* and *Euthysanius*. A large and singular species of *Hetaerius* was also found. Important is the fact that the species formerly referred by me to *Malachius*, are to be separated therefrom, as it diminishes the small number of exceptions to the principle announced by me, that no genus was common to Europe and Pacific America, without being represented in Atlantic America.

I have not included some *Staphylinidae* in the collection, which, with the exception of a small *Isomalus*, were previously found by me in other parts of California, hoping at a future time to bring them with a vast number of other new species of that family into a monograph. Two species of *Curenionidae* are also omitted, for the reason that it will involve more labor to determine the genera to which they belong, than I can properly devote to the subject at present.

1. *Omus californicus*. A male of this species from Fort Tejon differs from those found at San Francisco, by the thorax being much rounded on the sides, especially before the middle. Judging from analogy of distribution of other insects in California, this would indicate a difference of a specific nature. Should the occurrence of other similar specimens warrant this conclusion, the name *O. Xanti* would be appropriate.

2. *Cyclrus punctatus*, ater capite thoraceque opacis alutaceis, hoc latitudine haud brevior, postice angustato lateribus marginatis, rotundatis postice sinuatis, ante basin transversim profunde impresso, elytris striis grosse punctatis, ventricosis, convexis, postice acutis. Long. .60—.68.

Abundant at Fort Tejon. Allied to *C. ventricosus* and others, but differs by the thorax being more gradually narrowed behind, and not suddenly constricted; as also by the sculpture.

3. *Cyclrus striatus*, ater, capite thoraceque subopacis, alutaceis, hoc latitudine longior, postice angustato, lateribus marginatis, rotundatis postice sinuatis, ante basin transversim profunde impresso, elytris ovalibus convexis, postice acutis, striis profunde punctatis. Long. .62.

One male, Fort Tejon. Related to the preceding; but the thorax is longer, more sinuate on the sides behind, so that they become parallel, but still without being constricted. The elytra are narrower and less ventricose, the striae are deeper and the punctures smaller.

4. *Calathus ruficollis*.

5. *Platynus cinctellus*. 6. *P. californicus*. 7. *P. fossiger*.

8. *Pterostichus contractus*. 9. *P. californicus (simplex Lec.)*

10. *P. vicinus (californicus Lec.)* 11. *P. intrans.*

12. *Anisodactylus (Dichirus) piceus (parallelus Lec.)* 13. *A. brevicollis*. 14. *A. similis*.

15. *Bradycellus nitidus*.

16. *Chlaenius variabilipes (asperulus Mén.; obscurus Lec.)*

17. *Hydrophilus triangularis*. 18. *H. californicus*.

19. *Necrophorus nigrita*.

20. *Silpha lapponica*.

21. *Cercus sericans*, oblongus modice convexus, fuscus, punctatus, pubescent. 1859.]

brevi cinerea sericans, capite thoraceque saepe rufo-testaceis, hoc latitudine plus sesqui brevior, lateribus rotundatis marginatis, antennis pedibusque testaceis, illis articulo 9no praecedente vix majore. Long. .07—.09.

Fort Tejon. Varies much in size and color, being sometimes fuscous, sometimes entirely pale testaceous: the usual variety has dark elytra and pale head and thorax. It differs from the types of the genus in having the antennæ very slightly thickened from the 3rd to the 9th joint, the 10th and 11th are thicker and longer than the 9th; the latter in the male is about twice the size of the 8th, in the female but little larger. The effect of this is to cause the antennæ to be only moderately clavate, instead of capitate. This taken in connection with the more dense pubescence and punctuation, and less convex body would seem to indicate the propriety of separating this as a distinct genus, but before a general study is made of our species of the family of Nitidulidæ the attempt to define it would be premature. As in other species of the genus, the antennal grooves are entirely wanting.

22. *Carpophilus pallipennis* (*floralis* Er.). Found also in the Rio Grande valley.

23. *Carpophilus caudalis*, elongatus, depressus, piceus nitidus, subtiliter pubescens, thorace brevi, lateribus rotundatis marginatis, sat dense punctato, elytris thorace duplo longioribus, fortius marginatis, punctulatis, macula magna rubro-testacea triangulari utrinque ornatis, pedibus antennisque rufis, his clava infuscata; abdomine segmentis tribus detectis, quarto sequente paulo longiore. Long. .15.

Two females; one from Tejon, the other from Nebraska. Precisely resembles in color and sculpture *C. discoides* Lec., (Proc. Acad. 1858, 62), but differs by the abdomen being much longer, and having three segments exposed. The latter was, however, described from a single male, and future examination may show that they are sexes of one species.

24. *Nitidula humeralis*, longiuscula, subconvexa, fusca, pubescens, thorace latitudine duplo brevior, lateribus late rotundatis, ciliatis, elytris nigricantibus, margine apicali et laterali angusto, strigisque tribus basalibus pallidis, intermedia longiore, antennis basi pedibusque pallidioribus.—Long. .16.

One specimen, Tejon. Related to *N. ziczac*, but is longer and more convex with the sides of the thorax less rounded, and with no medial angulated spot on the elytra: the three spots at the base are connected, and there is besides a slight submarginal spot near the middle. As in that species the middle and posterior tarsi are very feebly dilated.

25. *Temnochila chlorodia*.

26. *Hister sexstriatus* Lec. Found also at San Francisco.

27. *Hister remotus*, oblongus niger nitidus, parum convexus, thorace stria marginali a margine remota, subsinuata, disco intra striam punctis paucis notato, elytris striis internis duabus pone medium antice abbreviata, tertia parum abbreviatis, tribus externis marginalique integris, epipleuris bistriatis, tibiis anticis serrulatis. Long. .23.

One specimen, Tejon. Belongs to div. 9 of my arrangement, Proc. Acad. Nat. Sc. 6, 38, although very distinct from all the others found in the United States. It seems most nearly related to the European *H. neglectus*, and with it belongs to Mr. de Marseul's 6th group.

28. *Hetaerius morsus*, piceo-rufus oblongus, thorace punctato subnitido, sulco obliquo utrinque insculpto, partibus lateralibus incrassatis valde elevatis planis, opacis dense puberulis, lateribus ante medium angulatis, ante basin profunde incisus; elytris pube erecta parce vestitis, punctatis subnitidis, striis externis tribus integris; prosterno compresso, postice paulo dilatato, mesosterno plano. Long. .14.

[Feb.

One specimen, Tejon. In this the most remarkable, as well as the largest species of the genus, the front is slightly concave, with a raised margin, and the tibiae are suddenly dilated and denticulate as in the others. The sides of the thorax are parallel from the base nearly to the apex, where they are suddenly obtusely angulated, and run to the anterior angles which are rounded: the incision near the base cuts across the incrassated side, leaving the posterior part a small quadrate elevated plate, the anterior portion larger, subtriangular with truncate angles, flat, opaque and densely pubescent.

29. *Saprinus lugens*. 30. *S. oregonensis*. 31. *S. lubricus*.

32. *Brontes truncatus*.

33. *Dermestes marmoratus*. 34. *D. Mannerheimii*.

35. *Attagenus rufipennis*, elongatus, niger, pubescens, thorace latitudine duplo brevior, paulo convexo, confertim minus subtiliter punctato, elytris parcius punctatis, rufo-testaceis, tarsis rufo-piceis. Long. .12.

One female, Tejon. A small species, differing from the others in my collection by the more coarse and dense punctuation of the thorax: the head is punctured like the thorax and the antennae are entirely black.

36. *Anthrenus lepidus*.

37. *Serica fimbriata*.

38. *Hoplia callipyge*. This may be a favorable opportunity to observe that recent observation has shown that *H. tristis* Mels. is the male of *H. trifasciata* Say (*primoria* Burm.), a fact that could never have been inferred from the appearance of the two supposed species.

39. *Pleocoma fimbriata*. Some fragments of this insect, found in the stomach of a woodpecker at Tejon, enable me to investigate the oral organs.

The clypeus at its inferior margin is emarginate for the insertion of a pyramidal hairy corneous labrum: the mandibles are short, pyramidal acute, with a few hairs near the apex. The maxillae are large at the base, with the lobes very small, the outer one not reaching beyond the first joint of the palpi, penicillate with long hair, the inner one much smaller, narrow and pointed; palpi slender, first joint short, 2d long, 3d one-half shorter than 2d, 4th a little longer than 3d. Mentum broadly rounded in front; ligula almost semicircular, palpi inserted on the upper face of the ligula, bases contiguous, with intermediate pencil of hairs, 3d joint longer than 2d, and the latter longer than the first. It will thus be seen that combined with the 11-jointed antennae with polyphyllous club, the characters above detailed are abundantly sufficient to establish this genus as a new group, related to Geotrupidae and Copridae, with, however, strong tendency towards the Dynastide group of Scarab. pleurosticti.

40. *Canthon simplex*.

41. *Anthaxia strigata*, lata depressa, nigro-ænea, sæpe cyaneo-variegata, thorace latitudine fere duplo brevior, lateribus rotundatis, angulis posticis subrectis, fortius reticulatim punctato, utrinque pone medium oblique impresso, elytris thorace haud latioribus, confertim fortius granulatis, fortius marginatis, parallelis, postice suboblique attenuatis et rotundatis. Long. .17—.25.

Tejon, abundant. Front moderately concave, hairy: the sides of the thorax are less rounded than in *A. expansa*, the punctures are strongly marked, and there are besides fine elevated lines, having a general longitudinal direction, connected together forming elongate meshes. In some specimens the disc of the thorax is darker than the sides. It is, perhaps, *A. æneogaster* Lep. and Gory; the description given by them contains no definite character by which to separate it from allied species.

42. *Acmaeodera connexa* nigro-ænea, cuneiformis pilis longis erectis parce
1859.]

vestita, thorace latitudine triplo brevior rude punctato, lateribus rotundatis, postice incurvis, medio late excavato, postice utrinque late impresso, elytris thorace angustioribus humeris elevatis; usque ad trientem secundum paulo, dein magis angustatis et fortiter serratis, striis punctis quadratis fortiter impressis, interstitiis parce subtiliter punctatis, maculis flavis pluribus ante medium varie conjunctis, alterisque duabus fasciiformibus pone medium fere ad suturam extensis, apice sæpe gutta flava notato. Long. .33—.47.

Tejon, numerous. Allied to *A. ornata*, but is narrower, and has the punctures of the intervals of the elytra much smaller. The spots are also different, the anterior ones forming a reticulated mass, more or less broken, extending from the base to beyond the middle, and from the margin two-thirds way to the suture. It is also allied to *A. opacula Lec.*, but the sides of the thorax are not yellow, the elytra are less gradually attenuated at tip, and the spots are different.

43. *Acmæodera retifer*, nigro-ænea, subparallela, pilis longis erectis parce vestita, thorace latitudine triplo brevior, punctato, lateribus rotundatis, medio late canaliculato, postice versus angulos oblique profunde impresso, elytris thorace haud angustioribus, ad trientem secundum vix angustatis, dein rotundatim attenuatis, fortiter serratis, striis fortiter punctatis, interstitiis parce subtiliter punctatis, maculis flavis varie connexis vittam reticulatam fere ad apicem extensam utrinque formantibus. Long. .34.

One specimen, Tejon. Allied by sculpture and marking to the preceding, but differs by the thorax not being wider than the elytra, by its sides not being suddenly incurved behind, and by the elytra being hardly attenuated from the base to the second third, and finally by the reticulated mass of small spots forming broad vitta extending nearly to the apex.

44. *Acmæodera guttifer*, subcylindrica æneo-nigra, parce longe albobiplosa, thorace latitudine duplo brevior, convexo, lateribus rotundatis, apice transversim impresso, basi medio profunde foveato et late excavato, fortiter punctato, elytris postice obtuse rotundatis, punctis quadratis seriatis, interstitiis subtiliter uniseriatim punctulatis, striis externis exaratis, guttis flavis ornatis, 3 discoidalibus, 5 submarginalibus. Long. .28.

Tejon. Resembles the small common species of the Atlantic States, but is abundantly distinct; the anterior discoidal spot is on the 5th and 6th spaces at the middle, the 2d on 4th and 5th at one-fourth from the apex, the 3d on the 3d and 4th half way between the second and the tip: the humeri are elevated.

45. *Limonium hispidus*.

46. *Dolopius subustus*. A variety of this species having the suture broadly fuscous and the margin of the elytra behind the middle also darkened.

47. *Sericosomus debilis*, luteo testaceus, elongatus breviter pubescens, thorace latitudine fere duplo longior, lateribus late rotundatis, antrorsum vix angustior, angulis posticis subearinatis haud divaricatis, dense punctato, obsolete canaliculato, elytris striis punctatis, interstitiis subconvexis confertim punctulatis. Long. .29.

One specimen Tejon. Closely related to *S. silaceus* (*El. silaceus* Say,) and differs essentially only by the posterior angles of the thorax not diverging, but continuing the outline of the sides of the thorax.

48. *Elater cordifer*, niger, breviter pubescens, thorace opaco, confertissime punctato, latitudine paulo longior, antrorsum sensim angustato, lateribus rotundatis, elytris late aurantiacis, macula communi nigra apicali cordiformi signatis, striis punctatis, interstitiis planis rugose punctulatis, antennis articulis 2do et 3io conjunctis 4to vix longioribus; tarsis fuscis. Long. .41.

[Feb.

One specimen, Tejon: another from Sacramento Valley given me by Mr. S. S. Rathron. Resembles in appearance *E. apicatus*, but the color of the elytra is much more vivid, the intervals between the striae are flat, the thorax is much more densely punctured and without lustre. The hair on the head and thorax is entirely black, on the elytra it is yellowish.

49. *Melanactes densus*.

50. *Cardiophorus fulvipes*, plumbeo-niger, nitidus pube brevissima incanus, thorace latitudine haud longiore, convexo, lateribus valde rotundatis, dense subtilissime punctulato, obsolete canaliculato, angulis posticis haud divaricatis, elytris subtilissime punctulatis, striis punctatis, interstitiis convexis, pedibus fulvo-testaceis. Long. .36.

One specimen, Tejon. Related to *C. tenebrosus*, but with the feet red, and the thorax more rounded on the sides. Belongs to the division with tarsi and unguis simple.

APLASTUS.

Frons paulo concava, antice sensim deflexa, medio haud marginata: oculi convexi; labrum breve antice rotundatum, clypeo arcuato affixum; mandibulae modice elongatae, acutae, medio obtuse dentatae: palpi articulo ultimo non longiore subcylindrico: antennae (maris) elongatae, 11-articulatae, articulo 1mo crassiore, sequentibus duobus brevioribus, 3io 2ndo sesqui longiore, haud dilatato, 4to triangulari, 5to sesqui longiore; 5—10, 4to aequalibus, 11 longiore apice acuminato. Prosternum antice late rotundatum, sutura laterali recta, postice mucronatum: coxae anticae parvae, mediae contiguae, posticae laminae intus subsubito latioribus truncatis: tarsi longiusculi, pubescentes, articulis 1—4 sensim brevioribus, 5to praecedente longiore, unguiculis integris: tibiae tenuis, calcaribus parvis; abdomen 5-articulatum.

Has the appearance of an elongate *Corymbites*, (e. g. *C. appressifrons*) but is closely allied to *Plastocerus* and *Euthysanius*, from which it differs essentially only by the antennae being elongate and serrate.

51. *Aplastus speratus*, nigro-fuscus, pube cinerea vestitus, thorace latitudine fere sesqui longiore, antrosum sensim angustato, lateribus rectis, angulis posticis elongatis valde divaricatis, punctato, postice obsolete canaliculato, elytris striis distinctis, interstitiis punctatis subconvexis. Long. .66.

Several specimens from Tejon. The antennae extend considerably beyond the base of the thorax, and being of the same length, or nearly so, in all the specimens, I infer that they are all males.

This genus most perfectly completes the line of genera from the aberrant *Elaters* like *Campylus*, through *Plastocerus* and *Euthysanius* to *Cebrio*. This resembles the *Elaters*, and *Euthysanius* the *Cebrios*. An interesting fact, though not without parallel in other families and classes of animals, is that these transition forms should all occur in one Zoological region.

52. *Plastocerus frater*. Under this name I would characterize a species very closely related in form and sculpture to *P. Schaumi*, but differing by the thorax being broader and considerably rounded on the sides. The female is of the same form as the male, but with the elytra slightly narrowed towards the tip; the wings are perfect. The antennae of the female are short and serrate. The specimens are in the collection of Mr. Henry Ulke, and I have not access to them at this present moment, but will on a future occasion make a full description of them. I will add, in passing, that the sexual characters given by me (*Trans. Am. Phil. Soc.* 10, 502,) are erroneously founded.

53. *Euthysanius lautus*. Several males and one female were procured at Tejon. The latter is one of the most remarkable forms yet found and indicates the close relation between this genus and the *Cebriionidae*. The head and

thorax are as in the male: the antennæ are longer than the head, 12-jointed, the inner angle of the 6th and 7th slightly prominent, of the 8th—11th joints gradually more prolonged into a short ramus: the ramus of the 11th almost equal to the 12th joint. Elytra covering only the first segment of the abdomen, diverging at the suture behind, and obliquely truncated with the outer angle broadly rounded. Abdomen very long, cylindrical, with seven ventral segments and a large anal plate, first segment very short. Feet entirely as in the male. Length, 1.45.

54. *Podabrus pruinosus*.

55. *Podabrus Tejonicus*, supra pallidus, capite dense subtiliter punctato, pone oculos nigro, thorace punctulato latitudine paulo longiore, lateribus rectis, utrinque longitudinaliter late excavato, disco postice late excavato callis duobus notato, elytris subtiliter scabro-punctatis; subtus piceus, antennarum basi, pedibusque pallidis femoribus posterioribus basi nigris. Long. .30.

One specimen, Tejou. At first view, resembles *P. cavicollis* Lec., from San Diego, but the head is more finely punctured, the thorax is comparatively wider, finely punctulate, not deeply excavated in the middle for its whole length, as in that species, and the elytra are more finely punctured: the anterior angles of the thorax are rounded, while in *P. cavicollis*, they are obliquely and broadly truncate. The ungues as in that species are broadly toothed at the base.

TANAOPS, (fam. Melyridæ.)

Antennæ frontales, in foveis insertæ: 11-articulatæ, serratæ; palpi maxillares articulo ultimo longiore acuto: labrum antice rotundatum, clypeus brevis membranaceus: tarsi simplices antici 5-articulati, maris articulis duobus paulo latioribus: abdomen segmentis ventralibus anticis medio membranaceis: caput elongatum.

A genus composed of *Malachius longiceps* Lec., (Proc. Acad. Nat. Sc. 6, 165,) and the one described below. It differs remarkably from the other genera, by the antennæ being frontal, inserted before the eyes, but not near the clypeal suture, which from the length of the head is thus much farther from the eyes than usual. The clypeus is membranous at apex, corneous at base in the type, but in the other is entirely membranous. This would seem to indicate that they were to be regarded as of different genera, but the form, sculpture and coloration, as well as the length of head and position of antennæ are so perfectly similar in both species, that it would be very unnatural to separate them. Regarding the genus as the transition form from *Malachius* with frontal antennæ and corneous clypeus to *Anthocomus* with the antennæ lateral and clypeus membranous, it will be clear that the clypeus might be variable in structure, provided other characters be impressed sufficient to distinguish the group as of generic value. We will then have two groups: 1. *T. longiceps*, with the clypeus partly corneous and the abdomen simple. 2. *T. abdominalis*, with the clypeus entirely membranous and the last three segments of the abdomen with deep reniform excavations, the last one having in addition a small cup like medial fovea.

56. *T. abdominalis*, niger nitidus, parce nigro-pilosellus, capite elongato, thorace lateribus late coccineis, elytris punctulatis limbo laterali, sutura fere ad basin, apiceque coccineis, subtus rufus, annis pedibus postpectoreque nigris, abdominis segmentis tribus ultimis profunde excavatis. Long. .15.

Tejon, one specimen. The pygidium is black, the segment before it is black in the middle, rufous at the sides. Other specimens will be required to determine whether the curious excavations of the abdomen are sexual or specific in value.

HAPALORHINUS.

Antennæ frontales, in foveis majusculis insertæ, 11-articulatæ, pectinatæ, vel serratæ; palpi maxillares articulo ultimo longiore acuto: labrum trans-

[Feb.

versum truncatum; clypeus brevis membranaceus; tarsi antici 5-articulati, maris haud dilatati: abdomen articulis totis corneis, vel medio membranaceis: caput breve.

A genus also intermediate between *Malachius* and *Anthocomus*, agreeing with the first in the position of the antennæ, with the second by the membranous clypeus. Besides the species here described, I refer to this genus *Malachius auritus* Lec., (Proc. Acad. Nat. Sc. 6, 165,) which differs by the antennæ being serrate in both sexes and by the ventral segments of the abdomen being corneous. In the species here made known, all the segments except the last have a wide medial membranous portion.

57. *H. mirandus*, elongatus, parallelus, capite viridiæneo, subtilissimè punctulato et pubescente, thorace latitudine brevior, flavo, macula magna nigra a basi fere ad apicem extensa, elytris opacis rugosis flavis, sutura anguste nigra, scutello nigro; subtus niger, genubus anterioribus, pedibusque posticis plus minus flavis. Long. .15.

Mas antennis pectinatis, elytris flavis, apice contortis, biappendiculatis; margine summo nigricante, femoribus tibiisque posticis flavis.

Femina antennis serratis, elytris flavis, fascia latissima e plagis tribus confluentibus composita nigro-virescente, pedibus posticis nigris, genubus testaceis.

Tejon. The colors of the two sexes are so different, as to lead to error. In the male the elytra are yellow, impressed and distorted at the apex, with a small cylindrical black sutural prominence, and a wide concave external one, which is margined with black: the posterior thighs and tibiæ are yellow, the former with the upper margin black. In the female there is a long common sutural spot confluent each side with one extending nearly the whole length of the margin, forming a very wide band of a greenish color, and the posterior legs are black, with only the knees and apex of the tibiæ yellow. The penis of the male is prominent forming a long cylindrical corneous style.

58. *Byturus grisescens*.

59. *Dasytes sordidus*. 60. *D. squalidus*. 61. *D. constrictus*. 62. *D. luteipes*.

63. *Dasytes quadricollis*, oblongus nigro-æneus, pilis nigris erectis dense vestitus, subtiliter cinereo-pubescent, thorace latitudine brevior, parce subtiliter punctulato, lateribus vix rotundatis, angulis posticis rectis subprominulis, elytris dense subtilius punctatis. Long. .17.

Tejon. Related to *D. conformis* and *sordidus*, but differs from both by the sides of the thorax being scarcely rounded, with the posterior angles very distinct.

64. *D. sculptilis*, elongatus, parum convexus, thorace latitudine brevior, lateribus late rotundatis angulis anticis acutis, posticis prominulis, alutaceo, præcipue ad latera parce punctulato, linea laterali a margine remota basin ambiente insculpto, elytris alutaceis rugose punctulatis, fortiter marginatis, ad apicem anguste flavis, ano antennis pedibusque rufis, femoribus posticis apice infuscatis: unguiculis internis appendice longa instructis, externis ad basin late dentatis. Long. .15.

One specimen, Tejon. A very extraordinary species having very much the appearance of a small *Trogosita*; the last three joints of the antennæ are a little broader than the preceding. The peculiar sculpture of the thorax, a lateral line remote from the margin, and bending around close to the basal margin, is also found in *D. constrictus*, but was not previously observed by me on account of the somewhat bad condition of the specimens. It is quite obvious in those collected at Tejon; in that species, however, the ungues are both furnished with a large appendage as usual.

65. *Rhadalus testaceus*. The original of this species, together with 1859.]

many other uniques of my collection was lost in a vessel, while being sent to Prof. Lacordaire for examination. A mutilated specimen was brought by Mr. Schott from the Mexican boundary, but the arrival of a fine specimen from Tejon, enables me to study anew the characters, by the aid of Prof. Lacordaire's fourth volume.

The tarsi are not lobed beneath as formerly described by me: the appearance was produced by the agglutination of hairs. From the absence of lobes, the presence of large appendages to the claws, and the size and obliquity of the middle coxæ, the genus must be referred to the same family with *Dasytes*, though remarkably different from any other described. The eyes are rounded, prominent and coarsely granulate: the last joint of the long maxillary palpi is large and securiform, of the labial palpi triangular; the posterior tarsi have the first and second joints about equal, the third very slightly shorter, the fourth still shorter. The sixth segment of the abdomen in one specimen is exerted, in the other retracted, so as to be very small. The posterior coxæ appear precisely as in the *Cleridæ*: so that this anomalous genus must be regarded as intimately connecting *Dasytes* with that family.

66. *Cymatodera ovipennis*, fusco-castanea, pilis pallidis parce vestita, capite confertissime, thorace subtilius dense punctato, latitudine duplo longiore, ante medium parum, pone medium fortius constricto, medio transversim rugoso, pone apicem transversim impresso, elytris ad basin thorace vix latioribus, postice seusim dilatatis, subtiliter punctulatis, striis punctatis, apicem haud attingentibus, internis brevioribus, fascia transversa pallida ad medium ornatis, antennis pedibusque pallidioribus, illis apice palpisque flavo-testaceis. Long. 40—45.

Tejon, two specimens. Resembles in form *C. angustata* *Spin.*, but is much larger, the thorax is less densely punctured, and the striæ of the elytra are abbreviated, the internal ones ceasing at the pale band.

67. *Trichodes tenellus*.

68. *Clerus eximius*.

69. *Necrobia rufipes*.

70. *Ptinus verticalis*, nigro-piceus, elongatus, pube sordide ochracea squamiformi dense vestitus, capite inter oculos transversim impresso, thorace latitudine longiore, postice angustato et profunde constricto, medio sulcato, ad medium dentibus 4 transversim positos e setis erectis formatis armato; elytris latitudine fere duplo longioribus, convexis lateribus rotundatis, seriatis punctatis et longe pilosis; antennis pedibusque testaceis. Long. 17.

One female, Tejon. Has the dimensions of the female of *P. fur*, but differs very much in its characters.

71. *Sinoxylou declive*.

72. *Exops Stoutii* Lec. *Allæcnemis Stoutii* Lec. 73. *E. ovipennis*.

74. *Lytus planicollis*.

75. *Edrotes ventricosus*.

76. *Nyctoporis carinata*.

77. *Pelecyporus costipennis*, elongatus, ater, subopacus, thorace convexo, latitudine brevior, lateribus valde rotundatis, depresso-marginatis, rugosis, angulis posticis perobtusis, disco æqualiter sat dense punctato, elytris thorace angustioribus, sutura, margine, costisque utrinque tribus valde elevatis. Long. 63—80.

Tejon. The first and second costæ unite about one-sixth from the apex, the third commences at the margin about one-fourth from the base, and ceases opposite the confluence of the other two costæ. The apex of the elytra is strongly margined. The antennæ are moderately short, hardly attaining the middle of the thorax: the head is punctured like the thorax: the apical angle

[Feb.

of the anterior tibiæ is prolonged. A variety occurs, in which the third costa is entirely wanting, and the first and second have the same origin at the base.

78. *Nosoderma diabolicum*.

79. *Nosoderma pustulosum*, sordidum, thorace obovato, latitudine longiore, angulis anticis rotundatis, posticis obtusis, dorso medio deplanato, lateribus late foveatis, tuberculis parvis subnitidis parvis, præcipue ad marginem et in medio positis, elytris intra humeros subexcavatis, medio deplanatis, ante apicem subretusis, tuberculis confertis subnitidis undique obsitis. Long. .92.

One specimen, Tejon. Of the size and form of *N. diabolicum*, but the tubercles are smaller, and less irregular, the base of the elytra is not excavated near the scutellum, and there are no velvety spots on the thorax and elytra.

80. *Nosoderma plicatum*, elongatum, nigro-sordidum, thorace obovato, latitudine longiore, angulis anticis rotundatis, posticis obtusis, subinæquali, medio granulis parvis nitidis, ad latera tuberculis parvis signato, elytris parallelis ante apicem triverrucosis, præcipue ad latera et apicem tuberculatis, costula humerali alteraque pone medium obliquis munitis. Long. .61.

Tejon, three specimens: very different from any other seen by me. The basal costa commences at the humerus, runs slightly inwards, and terminates at the middle: another oblique fold commences near the margin a little before the middle, runs parallel with the first, and ends about the third fifth; the inner anterior tuberosity is also a little prolonged in the same direction. There is a slight vestige of a costa at the base, parallel with the suture and about midway between it and the humeral costa. The antennal cavities are not so abrupt as in *N. diabolicum*.

81. *Eleodes dentipes*. 82. *E. laticollis*. 83. *E. quadricollis*.

84. *E. consobrina*. 85. *E. Veseyi*. 86. *E. scabrosa*.

87. *Eleodes scabripennis*, atra, ovata, subnitida, thorace latitudine paulo brevior, subquadrato, lateribus rotundatis, postice sensim paulo angustato, angulis posticis obtusis, dense punctato, ad latera subasperato, elytris ovalibus, thorace latioribus, dorso parum convexis, postice valde declivibus, granulis parvis inordinatis dense exasperatis, et versus suturam punctatis, tibiis muticis, prosterno postice oblique submucronato, antennis extrorsum parum incrassatis. Long. .65.

One specimen, Tejon. Of the same size and sculpture as *E. Veseyi*, but differing by the thorax being much less rounded on the sides, by the posterior angles not being at all prominent, and by the prosternum being a little more prominent behind.

88. *Amphidora osculans*. 89. *A. littoralis*.

90. *Helops rugulosus*.

91. *Helops angustus*, elongatus, æneo-niger, subnitidus, thorace latitudine haud brevior, vix convexo, lateribus rotundatis, angulis posticis subrectis, capite dense aciculato-punctato, elytris thorace paulo latioribus, striis profundis antice subpunctatis, interstitiis parce subtiliter punctulatis, antennis pedibusque rufo-piceis, palpis tarsisque piceo-rufis. Long. .31—.36.

Tejon, two specimens. Quite distinct from all others known to me by the above characters.

92. *Coniontis viatica*.

93. *Coniontis abdominalis*, ovalis, subcylindrica, convexa, nigra, subnitida, thorace lateribus minus subtiliter marginatis, medio parce, lateribus densius subtiliter punctato, elytris rugosis, sat dense punctatis, abdomine confertim rugose punctato. Long. .66.

Larger and stouter than either *C. viatica*, *affinis* or *Eschscholtzii*, having the sculpture very like *C. affinis*, but with the elytra more finely punctured: in all of those however the abdomen is very sparsely and finely punctulate, while in this it is entirely covered with a coarse, somewhat rugous punctation.

94. *Blapstinus brevicollis*. 95. *B. pulverulentus*.

96. *Eulabis rufipes*.

97. *Eulabis brevicornis*, elongatus, nigro-piceus, capite confertim, thorace confertim minus subtiliter punctatis, hoc latitudine brevior, minus convexo, lateribus rotundatis, postice subsinuatis angulis posticis rectis, elytris subtiliter costatis, interstitiis uniseriatis punctulatis, antennis pedibusque piceis, illis capite paulo longioribus. Long. .25.

Narrower and less convex than *Eu. rufipes*, with the antennæ shorter and stouter.

98. *Tenebrio molitor*.

99. *Cœlocnemis obesa*.

100. *Platydema oregonense*.

101. *Xystropus opacus*, elongatus, niger opacus, thorace semicirculari, basi bisinuato, confertissime subtiliter punctato, elytris thorace haud latioribus, striis punctatis interstitiis vix convexis, sutura anguste rufescente. Long. .35.

One specimen, Tejon. Related to *X. brevis* (*Cistela brevis* Say) but much narrower, and with the antennæ and feet entirely black.

102. *Cistela sericea*.

103. *Prionychus cyaneus*, elongatus niger, thorace elytrisque obscure cyaneis opacis, capite thoraceque confertissime punctatis, hoc subquadrato, lateribus paulo rotundatis, elytris thorace paulo latioribus, striis punctatis, interstitiis paulo convexis, alutaceis. Long. .31.

One specimen, Tejon. Of the same size and form as *P. gracilis* (*Stenochia gracilis* Lec.) from San Diego, but differs by the blue color of the thorax and elytra, and the entirely black feet.

104. *Allecula punctulata*, elongato-ovalis, fusca, pubescens, thorace latitudine plus duplo brevior, semicirculari, confertim subtiliter punctato, basi utrinque subimpresso, elytris confertim subtiliter punctatis, striis internis distinctis, externis vagis, antennarum basi, tibiis tarsisque pallidioribus, Long. .28.

Tejon, one specimen. Differs from several species from the Atlantic States by the thorax being more finely and densely punctured.

105. *Anaspis atra*.

106. *Anaspis nubila*, linearis, flava pubescens, subtiliter dense punctulata, thorace latitudine fere duplo brevior, semicirculari, elytris fascia lata media indeterminata nigra, antennis nigris, basi flavis; subtus fusca, pedibus flavis. Long. .09.

Tejon. No sexual appendages on the abdomen of the specimens examined.

107. *Mordella scutellaris*.

108. *Lytta smaragdula*. A specimen perhaps belonging to this species, found at Tejon, is of a purplish color, with the antennæ longer than in the type, with the external joints nearly twice as long as wide. It does not differ in any other character, and I am therefore for the present unwilling to separate it.

109. *Lytta puncticollis*.

110. *Nemognatha scutellaris*.

111. *Pedilus punctulatus*.

112. *Asclera excavata*.

113. *Bruchus desertorum*.

114. *B. pauperculus*.

115. *Rhyncites bicolor*.

116. *Sitones californicus*.

117. *Lixus pleuralis*.

118. *Baridius nasutus*, *elongatus niger*, nitidus, rostro thorace haud brevior, tenni parum arcuato, seriatim punctato, fronte constricta, capite parce punctulato, thorace latitudine longiore, lateribus late rotundatis, apice breviter constricto, fortiter sat dense punctato, ad latera parce albo-pubescente, elytris striis profundis punctatis, interstitiis planis, uniseriatim punctulatis et albo-pubescentibus, antennis tenuibus, articulo 2do elongato, 3io sequente paulo longiore. Long. .18.

One specimen, Tejon.

119. *Centrinus lineellus*, breviter fusiformis, niger, subtus squamulis ochreis argenteo-nitentibus dense tectus, rostro thorace longiore, arcuato, apice remote subtiliter basi fortiter punctato, linea media lævi, capite nudo parce punctulato, thorace dense punctato, nigro-squamoso, vittis tribus latis ochreo-squamosis, elytris nigro-squamosis, profunde striatis, vittis duabus integris intermediaque basali ochreo-squamosis. Long. .12.

One specimen, Tejon. The inner vitta occupies the whole of the 2nd interval and the 3rd from the apex to within one-fourth of the base: the short basal vitta is on the 4th, and extends about one-sixth of the length: the external vitta covers the 6th interval to the middle, then occupies the 7th and 9th: a few scattered yellow scales are seen near the margin. The commissures of the abdomen and the coxæ are black. The feet are sparsely clothed with scales.

120. *Sphenophorus subcarinatus*.

121. *Sphenophorus simplex*, niger, subnitidus, rostro cylindrico, subtiliter punctato, ad basin canaliculato, capite lævi, thorace oblongo, latitudine longiore, lateribus late rotundatis, ad apicem subito constricto et tubulato, fere æqualiter punctato, ante scutellum obsolete impresso, et paulo grossius punctato, elytris striis profundis externis punctatis, interstitiis alutaceis planis subtiliter parce punctulatis, tibiis anticis intus late sinuatis, posterioribus intus unidentatis et fimbriatis, antennis piceo-rufis. Long. .32—.36.

Tejon. Varies with the legs reddish yellow. The small punctures of the intervals of the elytra are irregular on the sutural and alternate spaces, but form a single series on the second and alternate spaces: the external striæ are distinctly punctured; the interior ones appear smooth, but with a powerful lens they are seen to be slightly punctured.

121. *Callidium blandum*, elongatum rufo-testaceum, parce breviter pallide pubescens, thorace latitudine vix brevior antice parum, postice distincte constricto, lateribus rotundatis, parce punctato, elytris obscure cyaneis confertim punctatis, abdomine nigricante, antennis obscuris basi rufis. Long. .25.

Tejon. Closely allied to *C. æmœnum* Say, but is narrower, with the elytra more densely punctured, the abdomen blackish, and the feet entirely rufous.

122. *Callidium obscurum*, fusco-nigrum, haud nitidum, pilis fuscis suberectis vestitus, capite thoraceque confertissime punctatis, hoc longius parce piloso, lateribus rotundatis, postice angustiore, linea obsoleta dorsali, calloque postico levibus, elytris parce punctatis, punctis ad basin grossis, postice subtilibus, femoribus valde incrassatis, tibiis parce longe pilosis. Long. .48—.55.

Tejon. Allied to *C. dimidiatum*, but from its larger size and uniform color it looks like a *Tetropium*.

1859.]

BROTHYLUS.

Oculi rude granulati: palpi compressi, breves: antennæ simplices articulo 4to contiguis fere duplo breviores: mandibulæ apice acutæ. Thorax lateribus rotundatis tuberculo acuto armatis, dorso bicallosus, elytris apice conjunctim rotundatis. Pedes mediocres, femoribus haud clavatis, tarsis posterioribus articulo 1mo sequentes duo æquante.

Belongs to the same group with *Eburia* and *Elaphidion*, but differs remarkably by the 4th joint of the antennæ being about half as long as the 3d or 5th.

123. *B. gemmulatus*, fusco-piceus, pube brevi helva vestitus, capite thoraceque rude punctatis, hoc latitudine haud brevius, lateribus antice rotundatis, postice sinuatis, tuberculo acuto ad medium armatis, dorso ad medium utrinque tuberculo sublævi munito, elytris thorace latioribus, subtilissime rugose punctulatis, granulis majusculis parvis nitidis, postice sensim punctis fientibus. Long. .67.

Tejon, two specimens. The granules are very scattered, larger at the base, gradually becoming smaller, they are converted into punctures at the tip.

124. *Elaphidion lineare*, valde elongatum, testaceum, parce minus subtiliter albo-pubescent, thorace latitudine longiore, lateribus rotundatis, confertim grosse punctato, callo dorsali postico lævi, elytris fortiter punctatis apice emarginatis, vix bispinosis, femoribus muticis, antennarum articulis 3, 4 et 5 spina brevi apicatis. Long. .41.

Tejon, one specimen. Quite as slender as *Sclerocerus rigidus*.

125. *Clytus nauticus*.

126. *Acmæops falsa*, elongata, nigra, pube brevi albida incana, thorace convexo, lateribus rotundatis, postice transversim impresso, et in lateribus vix constricto, angulis posticis obtusis, rufo nitido haud dense punctato, elytris confertim punctatis, thorace latioribus parallelis apice rotundatis. Long. .28.

One specimen, Tejon. By its color this species recedes from *Acmæops* and resembles various *Leptura*, but the characters, as well as the form of thorax, belong to this genus.

127. *Toxotus nubifer*, capite nigro punctato, thorace nigro subtiliter punctulato, latitudine longiore, antrosum angustato, antice posticeque constricto, tuberculo laterali magno obtuso, elytris humeris prominulis, postice sensim angustatis apice oblique intus truncatis, dense subtilissime punctulatis et rugosis, nigricantibus, margine basali laterali apicalique late piceo-rufo; pectoribus nigris, abdomine antennis palpis pedibusque piceo-rufis. Long. .70.

One specimen, Tejon.

128. *Leptura læta*.

129. *Leptura 6-spilota*, nigra, dense fulvo-pubescent, thorace latitudine haud longiore, convexo, confertissime punctato, lateribus rotundatis, a medio antrosum angustato, angulis posticis parvis acutis, elytris sat fortiter punctatis, postice sensim angustatis, apice singulatim rotundatis, pallide flavis, sutura limboque toto anguste nigris, macula utrinque ante medium alterisque tribus margini cohærentibus nigris, antica angustiore, alteris magnis quadratis: femoribus rufo-testaceis, tibiis tarsisque infuscat, antennis fuscis. Long. .24—.33.

Tejon, abundant. Belongs to the same group as *L. instabilis*, *connexa*, *cordifer*, &c.

The anterior marginal spot is only a slight dilatation of the black margin, and extends from the base one-fourth the length of the elytra: the second spot is quadrate extending from the margin half way to the suture, the third is transverse, quadrate, situated one-fourth from the apex, and sometimes nearly reaches the suture.

130. *Tetraopes manceus*, niger, supra coccineus, breviter nigro-pubescent, thorace parce punctato, tuberculo laterali prominulo obtuse rotundato, umbone dorsali modice sed subito elevato, guttis 4 nigris solitis definito, elytris modice punctatis, gutta humerali alteraque utrinque pone medium nigris ornatis, scutello nigro, pedibus totis nigris, antennis cinereo-annulatis, articulo primo saepe rufo-tincto. Long. .55—.61.

Tejon, abundant. Spotted like *T. 5-maculatus*, but the middle of the thorax is more elevated, the lateral tubercles more prominent, the elytra less coarsely punctured, and the antennæ annulated with cinereous hair.

131. *Saxinis saucia*. Three specimens from Tejon differ from more northern specimens by the thorax and elytra being more strongly punctured. Such differences between forms presenting otherwise similar specific characters are found in several genera of Chrysomelidæ. I leave the investigation of their nature for a future occasion.

132. *Exema conspersa*. Abundant.

133. *Cryptocephalus auratus*, (*chalconatus* Mann.)

134. *Pachnephorus ? smaragdulus*. Abundant.

135. *Chrysochus cobaltinus*.

136. *Glyptoscelis albidus*, oblongus, obscure cupreus, densissime albo-pubescent, thorace confertim punctato, latitudine haud breviori, lateribus late rotundatis, elytris thorace latioribus confertim punctatis. Long. .30.

Tejon: a specimen from Sacramento was given me by Mr. S. S. Rathvon. Differs from *G. hirtus*, (*Eumolpus hirtus* Ol. *Eu. pini* Say,) by the punctures being smaller, by the thorax being narrower and less rounded on the sides and by the hair being of a uniform whitish color. The genus *Glyptoscelis* (4Chevr.) is distinguished from the other genera allied to *Eumolpus* by the mouth not being covered beneath by the prosternum, by the claws being toothed, and by the tibiæ being longitudinally sulcate. The head is not sculptured as in *Heteraspis*.

137. *Ædionychis violascens*, ovata, convexa, chalybeo-violacea, thorace latitudine duplo breviori, antrorsum angustato, angulis anticis prominulis posticis rectis, fortiter haud dense punctato, elytris confluentur haud subtiliter punctatis. Long. .24.

Tejon, two specimens. From its color, it appears at first sight to be a *Haltica* of the division Graptodera.

138. *Phyllobrotica flavicollis*, cyanea, thorace flavo, latitudine paulo breviori, subquadrato, lateribus late rotundatis, disco postice late haud profunde impresso, elytris punctulatis, antennis basi testaceo-maculatis. Long. .28.

Tejon. Resembles in form *Galleruca atriventris* Say, and belongs to the same genus as that species, which has a remarkable peculiarity not before noticed: in the male the third joint of the antennæ is obsolete, so that the organs become 10-jointed. I have not yet examined any males of the present species.

139. *Phyllobrotica bivittata*, flava nitida, oculis vittaque elytrorum a humero fere ad apicem extensa nigris, thorace latitudine breviori, lateribus rotundatis; elytris obsolete punctulatis. Long. .18.

Fort Tejon. A very pretty little species, without any thoracic impressions.

140. *Diabrotica viridipennis*, capite flavo, occipite nigricante, thorace flavo, latitudine breviori, lateribus rectis parallelis, disco postice profunde lunatum excavato, elytris subtiliter punctulatis cyaneo-viridibus, postpectore abdomineque nigris pube albida canis, pedibus flavis, antennis fuscis, basi flavis. Long. .25.

Tejon. I know not the value of this or the preceding genus, nor the characters upon which they rest: the habitus is sufficient to enable them to be readily recognized, but future researches will be necessary to establish them fully.

141. *Diabrotica 12-punctata*.

142. *Gallernea guttulata*. 143. *G. luteocincta*.

144. *Microrhopala signaticollis*, nigro-cyanea, capite tristriato, thorace latitudine brevior, antrosum angustato, lateribus rectis, parce grosse punctato, macula maxima laterali a basi fere ad apicem extensa rufo-flava, elytris thorace latioribus subparallelis, apice late rotundatis, punctis grossis seriatim positis, seriebus per paria paulo approximatis. Long. .23.

Tejon, one specimen. This species has the form, size, and sculpture of *Hispanoclyanea Say*, except that the thorax is more sparsely punctured. The lateral yellow spots readily distinguish it from all others seen by me.

145. *Hippodamia punctulata*. 146. *H. obsoleta*.

147. *Mycetina morosa*, elongata, nigro-picea nitida, thorace vix punctulato, latitudine paulo brevior, lateribus parallelis antice rotundatis, disco concavo, inæquali, linea transversa basali medio profunde exarata extrorsum subtilior, impressionibus basalibus brevibus profundis, elytris thorace paulo latioribus, elongato-ovalibus punctulatis. Long. .27.

Tejon, one specimen. This species has very much the same proportions as *M. laeta*, (*Epipocus latus* Lec.)

Supplement.

I have, for the purpose of making these pages a complete record of the additions to our Pacific Coleopterous Fauna, here collected notes and descriptions of species derived from various sources, which have not been mentioned in my Report on the Coleoptera of Pacific North America, for the P. R. R. Expl. of 47th Par., or in the Catalogue of Coleoptera found adjacent to the U. S. and Mex. Boundary, printed in the 4th vol. of the second series of the Journal of the Academy. I propose, from time to time, as fresh material is furnished by the kindness of my friends, to give other supplements to the Pacific Coleoptera Fauna of the United States.

1. *Dromius quadricollis*, nigro-piceus, depressus, thorace latitudine brevior, quadrato, postice subangustato, transversim rugoso, postice profundius impresso, lateribus latius marginatis pallidioribus, elytris oblongis, striatis interstitiis parum convexis, subtus piceus. Long. .28.

Puget Sound, Mr. George Davidson. Very closely allied to *D. piceus*, but differing chiefly in the form of the thorax: the latter is broader than long, scarcely narrowed behind, with the depressed margin broader, the disc more rugous, the dorsal line deeper, and the posterior transverse impression deeper; the posterior angles are also more regularly rounded, and the elytra are a little broader.

2. *Cymindis abstrusa*, picea, pubescens, capite thoraceque fortiter punctato, fronte lævi, thorace latitudine brevior, postice angustato, lateribus rotundatis postice subsinuatis, margine latius reflexo pallidior, angulis posticis obtusis, basi late rotundato, linea dorsali profunda, elytris oblongo-ovalibus nitidis, striis antice punctatis, interstitiis planis, confuse subtiliter punctatis, margine pallido, antennis castaneis, abdomine pedibusque piceo-testaceis. Long. .41.

Washington Territory, Dr. Kennerly. Of the size of *C. laticollis*, but with the elytra shining, and the thorax more broadly margined: from *C. reflexa* it differs by its larger size, broader elytra, and less coarsely punctured head and thorax; the latter is also comparatively more narrowed behind, with the posterior angles less obtuse.

[Feb.

3. *Platynus bembidioides* (*Sericoda bemb.* Kirby). A specimen was found on Puget Sound by Mr. Davidson, which in no respect differs from one found by me at Lake Superior.

4. *Pterostichus herculaneus* Mann. A specimen (.70 long) was found by Mr. Davidson on Puget Sound, which apparently belongs to this species. It is related to *P. algidus*, but the two basal impressions each side run into a large fovea as in *P. coracinus*, &c., without, however, leaving any prominence or punctures between them; the little ridge adjacent to the margin is more distinct. The elytra have a faint purplish tinge as in *P. amethystinus*.

5. *Anisodactylus semipunctatus*, oblongus, niger, vel æneo-niger nitidus, capite punctulato, postice parce punctato, thorace latitudine sesqui brevior, postice subangustato, lateribus rotundatis, postice obliquis subdepressis, angulis posticis obtusis, confertim subtiliter punctato, basi utrinque paulo impresso, elytris striatis, interstitiis planis alternis parce punctulatis et breviter pubescentibus, stria 2da postice unipunctata. Long. .45—5.

Oregon, Dr. Suckley, California. Resembles in form *A. brevicollis* Lec., but is distinguished among the black species, having the spur of the anterior tibia toothed each side at base, by the small punctures of the alternate spaces of the elytra. These punctures are sometimes, however, hardly distinct, in which case this may be distinguished from *A. brevicollis*, *consobrinus* and *californicus*, as well by differences in form, as by the sides of the thorax being more distinctly and broadly depressed, and from *A. similis* by the thorax being more narrowed behind, with the posterior angles more obtuse. I find, on careful examination, that the last named species presents traces of fine punctures on the alternate spaces of the elytra.

6. *Agonoderus rugicollis*, nigro-piceus, thorace testaceo, macula oblonga centrali nigro, latitudine haud brevior, postice paulo angustato, lateribus postice subsinuatis, basi late rotundato subdepresso punctato, angulis posticis rectis rotundatis, elytris testaceis striis profundis, 2da unipunctata, interstitiis subconvexis, 2, 3 et 4 a quadrante ultra dodrantem nigris, antennis pedibusque testaceis. Long. .28.

California, Mr. Rathvon. Very similar to *A. dorsalis* and *pallipes*, with the posterior angles of the thorax more rounded than in the former, but less than in the latter; it differs from both by the sides being slightly sinuous, by the base being more depressed and punctured, by the disc being very distinctly rugous, and finally by the intervals of the elytra being less convex.

7. *Badister anthracinus*, niger, nitidus, thorace latitudine sesqui brevior, postice paulo angustato, angulis posticis obtusis rotundatis, anguste marginato, antice transversim impresso, linea dorsali sat profunda, basi utrinque late impresso alutaceo, elytris striis profundis, 2da bipunctata. Long. .25.

Oregon, Dr. Suckley.

8. *Bembidium indistinctum*. 9. *B. connivens*; Oregon, Dr. Suckley.

10. *Bembidium erasum*, nigro-æneus, nitidissimus, thorace latitudine brevior, convexusculo, lateribus rotundatis postice paulo angustato, foveis basalibus profundis bistriatis, basi punctato, elytris thorace latioribus, subconvexis, striis internis 2 vel 3 subtiliter punctulatis, externis omnino oblitteratis, 3ia profunde bipunctata. Long. .17.

Oregon, Dr. Suckley. Related to *B. tetraglyptus*, but is more convex and much more shining, with the thorax narrower, and the basal foveæ deeper and punctulate; the carina at the angle is very distinct.

11. *Bembidium obliquulum*, latiusculum, æneum, thorace latitudine sesqui brevior, ante medium angustato et lateribus rotundato, angulis posticis rectis, basi transversim profunde impresso et utrinque bifeovato, fovea externa obliqua, carina angulari minuta, elytris striis internis 4 vel 5 punctulatis, externis oblitteratis, interstitio 3io bipunctato, femoribus nigro-piceis, tibiis tarsisque piceo-rufis. Long. .24.

1859.]

California, Mr. Rathvon. Related to *B. nitidum*, (*Eudromus n.* Kirby) but differs by the less shining surface, the obliquity of the external basal fovea, and the color of the legs.

12. *Nebria livida*, aptera testacea, thorace postice angustato, lateribus parum sinuato, angulis posticis subrectis, elytris octostriatis, stria 3ia quadri-foveata, 5ta bifoveata, 6ta trifoveata. Long. .43.

Cape Flattery; Dr. Newberry. Body depressed, uniform pale testaceous: head smooth, with faint impressions. Thorax wider than the head, one half wider than long, gradually, but considerably narrowed posteriorly, sides rounded in front, very faintly sinuate behind, posterior angles slightly obtuse, not at all rounded, dorsal line entire, transverse impressions well marked, base sparsely punctured and rugous, basal impressions not elongated, lateral margin moderate. Elytra almost elliptical, with eight moderately deep striae, not punctured, but marked with rows of brown quadrate cells in the substance, simulating punctures, the third stria has four or five punctures, the fifth has two to five behind the middle, the sixth has three or four also behind the middle, the scutellar stria is short; at the widest part they are one half wider than the thorax.

13. *Neerophilus tenuicornis*, elongato-ovalis, nigro-piceus, parum convexus, thorace latitudine duplo brevior, lateribus rotundatis indeterminate piceis, angustius depressis, parce subtiliter punctato, fortius versus latera, elytris stria subtiliter crenulatis, 2nda 4taque punctis pluribus impressis, antennis fere filiformibus, articulis externis crassitie fere duplo longioribus, pectore pedibusque piceis. Long. .22.

Puget Sound, Mr. Davidson. Much smaller and narrower than *N. hydrophiloides*, larger and narrower than *N. latus*, but specially distinguished from both by the antennae not being thickened externally: the second joint is almost equal to the fourth, and the third is scarcely one half longer than either. By these characters it approaches *Pteroloma*, but the mandibles are not many toothed, nor are the palpi acuminate at tip, and the inner lobe of the maxillae appears as in *Neerophilus*: the legs are also moderate in length as in the latter genus.

14. *Peltis serrata*, oblongo-ovalis, sordide atra, opaca, rude punctata setis erectis curvatis hispida, elytrorum thoracisque lateribus fortiter serratis, thorace inaequali medio elevato, canaliculato, angulis posticis elongatis spiniformibus, elytris tricostatis, internis duabus interruptis in callis magnis postice desinentibus. Long. .40.

Washington Territory, collected on the N. W. Boundary Survey, by Mr. Geo. Gibbs. This species closely resembles *P. silphides*, (*Boletophagus silphides* Newman, which was considered as identical with *P. dentata*, of Northern Europe, by Dejean.) It is however larger, somewhat narrower, and has the posterior angles of the thorax more elongated and prominent.

15. *Aulonium aequicolle*, elongatum parallelum, nigrum nitidum, capite thoraceque subtilius punctatis, hoc latitudine vix longiore, lateribus late rotundatis, lineis solitis insculptis, disco aequaliter paulo convexo, elytris punctulatis, stria punctatis postice oblitteratis. Long. .20.

Sacramento Valley, Mr. Rathvon. Of the same form and sculpture as *Au. parallelopedum*, and differing only by the thorax being not at all excavated or tuberculate anteriorly, and by the sides being a little more rounded.

PSEUDOPHANUS.

Palpi maxillares articulo ultimo elongato, cylindrico; mandibulae breves: antennae corpore breviores, articulis externis vix crassioribus, 1mo crassiore conico paulo longiore; caput linea utrinque supraoculari insculpto; pedes mediocres, tarsi brevibus, articulo 1mo parvo, 2ndo triangulari, 3io 2ndo aequali longe bilobato, 4to vix conspicuo, 5to longiore unguiculis parvis.

[Feb.

A genus having very much the form of *Telephanus*, but differing by the cylindrical palpi, and small fourth joint of the tarsi: as habitual characters, the body is more densely punctured, and the head each side has a longitudinal line running from the base of the antennæ.

16. *P. signatus*, elongatus, testaceus, pubescens, capite thoraceque dense punctulatis, hoc latitudine longiore lateribus rectis serrulatis, angulo utrinque prope apicem obtuso, disco postice vage impresso, punctis versus basin majoribus; elytris basi truncatis, humeris obtusis, striis punctatis, postice fere oblitteratis, interstitiis dense punctatis, 4to, 6to et 8vo paulo latioribus, plaga scutellari, altera communi ad medium, guttaque utrinque postica cum mediali connexa nigricantibus; antennarum articulis 8, 9 et 10 infuscat. Long. .18.

Puget Sound, Mr. Davidson. A very pretty little insect: the markings on the elytra present a scutellar triangle, and a medial spot having the form of the head of an arrow.

17. *Ceruchus striatus*, piceo-niger, nitidus, capite thoraceque grosse parcius punctatis, fronte late concava, elytris striis profundis in fundo densius, costis parcius grosse punctatis, antennis rufis. Long. .68.

One female, found at Shoalwater Bay, by Dr. Cooper, and another in Washington Territory, by Mr. Gibbs. Resembles in proportions *C. piceus*, but is much larger: the thorax is more convex and the elytra more deeply striate and much more punctured.

18. *Corymbetes tinctus*. Several specimens of a species were found by Dr. Kennerly and Mr. Gibbs, in Washington Territory, having the elytra of a metallic green or purplish color. These resemble closely in appearance *C. aeripennis*, and differ only by the thorax being less narrowed in front, more broadly rounded on the sides, and by the striae of the elytra being deeper, the interstices slightly convex and more rugous, and by the feet being piceous tinged with rufous. *C. carbo*, besides having both body and feet entirely black, has the thorax still less narrowed in front, more strongly punctured, and the prosternum more coarsely punctured.

19. *Corymbetes profractus*, elongatus, linearis, piceo-niger, thorace longius elytris breviter cano-pubescentibus, illo latitudine fere sesqui longiore, parum convexo, crebre punctato, lateribus rectis fere parallelis, angulis posticis acutis divergentibus, haud carinatis, elytris striatis, interstitiis convexis confertim punctatis, antennis articulo 3io 4to aequali. Long. .58.

Oregon, Dr. Cooper. A very distinct species having the form of the male of *C. pyrrhos*.

20. *Dolopius opaculus*, testaceo-piceus, opacus, helvo-pubescens, thorace lateribus postice pallidioribus dense punctato, paulo convexo, latitudine sublongiore, antrorsum sensim angustato, lateribus ante medium rotundatis, angulis posticis acutis carinatis, ante scutellum breviter canaliculato, elytris a basi sensim angustatis, striis punctatis, interstitiis vix convexis, confertissime punctatis; coxis posticis laminis intus subito dilatatis, pedibus antennisque fere testaceis, his articulis 2 et 3 æqualibus, singulis 4to paulo brevioribus. Long. .27.

One specimen, Puget Sound, Mr. Davidson. Distinct from all others in my collection, by its form, which approaches that of the small *Monocrepidii* with simple tarsi, (*M. dorsalis*, &c.)

21. *Elatar tartareus*, niger opacus, cuneiformis, breviter nigro-pubescent, thorace confertissime punctato, latitudine longiore paulo convexo, antrorsum sensim angustato, lateribus late rotundatis, elytris striis punctatis, interstitiis confertim scabro-punctatis, antennis valde serratis, articulis 2 et 3 parvis æqualibus. Long. .39.

Puget Sound, Mr. Davidson. Belongs to my division A. (*Trans. Am. Phil. Soc.* 10, 463,) and is related to *E. turbulentus* Lec.

22. *Adelocera cavicollis*, nigro-picea opaca, ferrugineo subvariegata, squamis luteo-sordidis inæqualiter vestita, thorace latitudine haud longiore, lateribus undulatis antice valde rotundatis, margine late depresso et reflexo, disco triangulariter maxime excavato, et antice utrinque fovea magna impresso, elytris dorso depressis, versus latera declivibus (ita ut costa obsoleta discoidea efformatur,) sulcis tarsorum nullis, antennarum prope coxas desinentibus. Long. .65.

One specimen, found by Dr. Newberry on the shores of Tlamath Lake. Allied to *A. brevicornis* Lec., but very different by the larger and deeper excavations of the thorax.

This species is unfortunately the only relic of a large collection made along the western border of the great basin: a region in which previously no collections had been made, and from which many most interesting species may be expected.

23. *Cardiophorus fenestratus*, niger nitidus, omnium subtilissime punctulatus, pube brevissima albida incanus, thorace latitudine haud longiore, utrinque angustato, lateribus rotundatis, modice convexo, postice obsolete canaliculato, striis basalibus elongatis, elytris striis fortius punctatis, interstitiis parum convexis, maculis rotundatis flavis, duabus ad medium, duabus ante apicem ornatis. Long. .25.

Puget Sound, Mr. Davidson. Of the same form as *C. tumidicollis* but with the thorax less convex.

PTEROTUS.

Corpus elongatum, alatum; caput breve, oculis magnis; antennæ paulo distantes, in foveis magnis insertæ, articulo 1mo brevi conico, 2do duplo minore, crassitie vix longiore, 3—10 elongatis, ramo interno articulo quadruplo longiore ad medium emittente, 11mo ramum præcedentis æquante. Palpi maxillares mediocres crassiusculi, articulo ultimo haud latiore; mandibulæ elongatæ, tenues, simplices. Thorax brevis trapezoideus, margine laterali et apicali reflexo. Elytra linearia, elongata apice rotundata. Coxæ anticæ et intermediæ magnæ conicæ contiguæ; posticæ parum prominulæ: abdomen articulis 7 ventralibus, lateribus serratum: 7mo profunde emarginato, segmento anali (maris) elliptico. Tarsi tibiis haud breviores, articulo 1mo sequentibus duobus haud brevioribus, 4to subtus lobato: unguiculari tenui longiore, unguiculis ad basin dilatatis.

A singular genus, which I have described at great length from my inability to place it properly. It seems to have a mixture of characters belonging to the Lampyrides, Telephorides and Drilides, but from the small size of the posterior coxæ is probably better placed with the latter. The antennæ are somewhat separated, inserted in large cavities, the edges of which being elevated make the front concave; it is difficult to say whether they are in front of or between the eyes. I cannot determine whether the labrum is distinct or not. The mandibles are very long, curved and slender as in Lampyrides. None of the ventral segments are phosphorescent.

24. *P. obscuripennis*, elongatus flavo-testaceus, subtiliter pubescens, thorace trapezoideo, latitudine duplo brevioribus, marginato, (latius ad latera et apicem,) punctulato, subtiliter canaliculato, elytris nigro-piceis, fortiter dense punctatis, lineis 4 parum elevatis. Long. .50.

Sacramento Valley, Mr. Rathvon.

ANORUS.

Corpus elongatum, lineare. Caput latiusculum, oculis majusculis, ore angusto, sutura clypeali distincto, clypeo brevi, trapezoideo, labro late rotundato. Antennæ distantes, ante oculos insertæ, 11-articulatæ, articulo 1mo crassiore conico, 2do duplo brevioribus, 3io 1mo æquali, 4—11 sensim paulo longioribus et angustioribus. Mandibulæ crassæ, acutæ. Palpi tenues, maxillares articulo ultimo longiore. Coxæ anticæ conicæ, contiguæ, trochantino maximo; proster-

[Feb.

no haud producto; intermediæ conicæ obliquæ, paulo distantes, mesosterno autice prominulo breviter carinato: posticæ obliquæ laminis intus sensim dilatatis: pedes mediocres, tibiis calcaribus distinctis, tarsis articulo 1mo longiore, 2 et 3 subtus lobo membraneo, 4to lobis duobus membraneis instructis, unguiculis simplicibus. Abdomen sub-6-articulatum, articulo 6to (maris?) apice rotundato, retractili.

A genus which appears to belong to the Atopidæ, though very distinct from those mentioned in Lacordaire's work.

25. *A. piceus*, piceus nitidus, minus subtiliter cinereo-pubescent, capite thoraceque punctulatis, hoc latitudine plus duplo brevior, antrorsum modice angustato, lateribus rotundatis, basi late bisinuato, elytris seriatim punctatis, substriatis. Long. .33.

San Diego, California: June. I have previously neglected to describe this insect from my uncertainty in regard to its position. I trust that the previous description will enable it to be recognized, for although there is nothing remarkable in the appearance of this dark brown, hairy narrow insect, there is hardly any genus with which it may be compared.

26. *Anobium marginicolle*, fuscum, subtilissime punctulatum, breviter pubescens, thorace latitudine brevior, lateribus valde rotundatis fortiter marginatis, elytris thorace latioribus, elongatis, vix obsolete striatis, antennis articulis 3 ultimis singulatim articulos 4—8 longitudine æquantibus: oculis majusculis prominulis. Long. .21.

Puget Sound, Mr. Davidson. Belongs to the division *Dryophilus* Chev., and differs from a nondescript Pennsylvanian species given me by Dr. Melsheimer, by the thorax being strongly margined on the sides, by the last joints of the antennæ being comparatively less elongated, and by the eyes being less prominent.

27. *Anobium quadrulum*, cylindricum, piceum, pube brevi cinerea sericans, thorace latitudine brevior, inæquali, scabro, lateribus subsinuatis valde marginatis, angulis posticis subrectis, basi late rotundato, scutello densius pubescente, elytris fortiter seriatim punctatis, interstitiis subtilissime punctulatis, antennis articulis 3 ultimis conjunctis præcedentes æquantibus. Long. .18.

Puget Sound, Mr. Davidson. Allied to *A. foveatum* Kirby, but is less elongate, with the sides of the thorax less sinuous, the posterior angles not acute but subrectangular, and the base much less rounded.

28. *Anobium cornutum*, nigrum, cylindrico-ovale, subtiliter punctulatum, pube brevissima cana vix conspicua vestitum, thorace latitudine duplo brevior, modice convexo, lateribus præcipue ante medium rotundatis, basi late rotundato, angulis posticis rectis prominulis, antennarum articulis 3 ultimis conjunctis reliquos fere æquantibus. Long. .11.

Mas, mandibulis cornu erecto tenui, capite sesqui longiore apice incurvo, armatis; femina mandibulis simplicibus.

California. This interesting species was sent me by Mr. Andrew Murray, as having been hatched in great numbers from some galls sent from California. The two horns of the male meet at their incurved tips.

SCOTOBÆNUS.

Corpus elongatum oblongum, apterum, elytris haud connatis. Clypeus planus antice truncatus: labrum late rotundatum: mentum parvum subhexagonum medio subelevatum, apice liberum, fere truncatum: antennæ extrorsum paulo crassiores, articulo 2do brevi, externis 4 vel 5 rotundatis. Pedes mediocres, femoribus paulo clavatis, tibiis angustis, linea interna insculptis, tarsis tibiis fere duplo brevioribus, articulis subtus flavo-villoris, articulo posticorum 1mo paulo longiore.

Allied to *Upis*, *Centrionipus*, *Nyctibates*, &c., but easily distinguished by the above noted characters.

29. *S. parallelus*, elongatus, niger, subnitidus, capite thoraceque subtilius sat dense punctatis, hoc latitudine paulo brevior, postice paulo angustato, lateribus late rotundatis, angulis posticis acutis, elytris thorace haud latioribus, seriatim punctatis, interstitiis sat dense subtiliter punctatis. Long. .75; lat. .30.

Sacramento Valley, Mr. Rathvon. The humeri are obtuse, very slightly rounded.

30. *Phryganophilus collaris*, elongatus niger, capite dense punctato, thorace latitudine plus sesqui brevior, antice angustato, lateribus valde rotundatis, basi bisinuato, disco utrinque late transversim oblique excavato, punctulato, rufo, medio nigricante, elytris thorace haud latioribus confertissime granulato-punctatis, antennis extrorsum paulo incrassatis, articulo 3io 4to aequali; abdominis articulo ultimo rufo. Long. .33.

Washington Territory, Mr. Gibbs. The palpi and feet are destroyed: it is perhaps a *Phryganophilus*, but in the absence of an authentic type of the genus for comparison, I cannot be certain.

31. *Anaspis nigriceps*, elongata, flavo-testacea, subtiliter pubescens, transversim subtiliter strigosa, capite nigro, ore palisque flavis, thorace latitudine duplo brevior, lateribus rotundatis, subtus fusca, antennis fuscis basi flavis, pedibus coxisque flavis, tarsis posterioribus fuscis. Long. .11.

Oregon, Dr. Suckley. Smaller than *A. pallens* Mann. and differing in the color of the head and under surface. No sexual characters observed.

32. *Elaphidion procerum*, (femina,) picea, tenuiter minus dense brevissime sordide pubescens, thorace latitudine brevior, lateribus rotundatis, in et versus latera inaequali, confluentur foveatim punctato, linea dorsali laevi, sulco basali profundiore, elytris antice modice, postice subtiliter punctatis ad apicem truncatis hispinosis, spina interna longiore, femoribus haud spinosis, antennis articulo 3io spina interna brevi, spiculoque externo obsoleto, sequentibus spinula externa alteraque interna armatis. Long. 1.50.

Umpqua Valley, Dr. Newberry. Closely resembles the female of *E. simplicicollis* Hald. (*E. pulverulentum* Hald.), but is much larger, with the sutural spine of the elytra longer than the outer one; the thorax is less rounded, much more coarsely punctured, with the basal groove deeper; the dorsal elevation is also linear, there is an anterior oblique discoidal callus each side, and the sides are quite distinctly impressed: in *E. simplicicollis* the discoidal callus is not seen and the sides are hardly impressed.

33. *Leptura xanthogaster*, elongata, nigra, opaca, capite thoraceque parce longe flavo-villosis, dense punctatis, hoc convexo, latitudine longiore, campanulato, lateribus subangulatis ante basin paulo angustato, et profunde transversim sulcato, elytris humeris elevatis, postice sensim paulo angustatis, punctatis flavis nitidis parce breviter flavo-pubescentibus, macula oblonga subhumerali, altera laterali ad medium, trienteque postico nigris, abdomine pedibusque flavis, tibiis ad apicem tarsisque anterioribus infuscatis. Long. .43.

Shoalwater Bay, Dr. Cooper. Of the same form and size as *L. crassipes* Lec., but it differs by the absence of the subapical round yellow spot of the elytra, as well as by the yellow abdomen.

34. *L. quadrillum*, nigra parum nitida, capite thoraceque confertissime punctatis, pube brevi erecta minus dense vestitis, hoc valde convexo, lateribus rotundatis, ante basin transversim sulcato, angulis posticis haud productis; elytris ad basin thorace tertia parte latioribus, humeris elevatis, a basi angustatis, ad apicem oblique truncatis, angulo externo acuto, sat dense punctatis, parce breviter pubescentibus, guttis tribus ad marginem pallide flavis ornatis, prima basali, secunda obliqua paulo ante medium, tertia pone medium, alteraque elongata pone medium subsuturali, saepe deficiente ornatis. Long. .42.

Shoalwater Bay, Dr. Cooper, Washington Territory, Messrs. Gibbs and Ken-
[Feb.

nerly. The basal spot of the margin is concealed in a dorsal view by the prominent shoulders, within which the disc is obliquely impressed. The thorax is nearly as in *L. vagans*, but the form of the elytra is very different; the species belongs in the neighborhood of *L. pubera* Say. The subsutural spot forms with the posterior lateral one a transverse band stretching forwards along the suture: there is sometimes also a scutellar yellow spot.

35. *L. lætifica*, nigra opaca, pube erecta nigra brevi parce vestita, capite thoraceque confertissime punctatis, hoc antrorsum sensim angustato, latitudine baseos vix longiore, lateribus late rotundatis, angulis posticis vix prominulis, disco postice subimpresso, ad basin marginato, elytris thorace latioribus, vix triangularibus, late coccineis opacis, antice fortiter, postice subtilius punctatis, gutta quadrata prope suturam ante medium, alteraque versus marginem ad medium, nonnunquam deficientibus, margineque apicali nigris; postice paulo dehiscentibus ad apicem truncatis, angulo externo acuto, suturis ventralibus rufo-piceis. Long. .43.

Shoalwater Bay, Dr. Cooper; Washington Territory, Mr. Gibbs. The antennæ are entirely black, suberrate and slightly thickened towards the tip, extending to the anterior fourth of the elytra. This species may be placed between the groups of *L. canadensis* and *L. vagans*.

36. *Leptura sanguinea*, nigra, opaca, pube erecta parce vestita, capite thoraceque confluentè dense punctatis, hoc ante medium antrorsum sensim angustato, latitudine paulo longiore, lateribus rotundatis, utrinque vix constricto, angulis posticis vix prominulis, elytris thorace latioribus, triangularibus, late rufis, confertim punctatis, postice paulo dehiscentibus, apice oblique truncatis et nigro-marginatis. Long. .4.

W. Territory, Mr. Gibbs. Allied to the preceding, but differs by the thorax being less narrowed in front, and the elytra much more closely punctured. The male has the thorax narrower and the outer margin of the elytra blackish.

37. *Leptura dehiscens*, minus elongata, nigra pube parca fulva erecta antice vestita, capite thoraceque dense fortiter punctatis, hoc convexo, lateribus valde rotundatis, antice multo angustiore, apice marginato, basi transversim impresso, elytris postice subangustatis obscure rubris, confertim punctatis, sutura postice rotundata valde dehiscente, apice haud acuto infuscato. Long. .5.

Oregon, Dr. Suckley. Allied to *L. vagans*, but with the punctures smaller and more dense, the elytra less triangular and not acute at apex: the antennæ are entirely black.

38. *L. lugens*, elongata nigra, opaca, capite thoraceque confertissime punctatis, pube brevi erecta parce vestitis, hoc latitudine longiore antrorsum sensim angustato, lateribus late rotundatis, ante basin transversim vix sulcato, angulis posticis paulo prominulis, elytris thorace latioribus, humeris subelevatis a basi postice paulo angustatis, postice dehiscentibus, et ad suturam rotundatis, angulo externo distincto, antice fortiter, postice subtilius punctatis, antennis corpore paulo brevioribus. Long. .42.

Shoalwater Bay, Dr. Cooper. This species might be placed near *L. nigrella*, but the posterior angles of the thorax are hardly visible, the humeral parts of the elytra are more prominent, the elytra are more dehiscent and the sutural angle altogether rounded.

39. *Syneta suturalis*, fusca, capite thoraceque dense rude punctatis, hoc lateribus bisinuatis, ad medium unidentatis, antice posticeque margine lato pallido ornato, elytris albis, sutura infuscata, seriatim punctatis, anguste marginatis, costis duabus parum elevatis intermediaque vix distincta, antennis, ore pedibusque pallide testaceis. Long. .23.

Puget Sound, Mr. Davidson. A very distinct little species, with only a single lateral thoracic tooth.

1859.]

40. *Syneta seriata*, testacea, capite thoraceque dense fortiter punctatis, hoc lateribus bisinuatis, medio obtuse lobatis, elytris seriatim punctatis, anguste marginatis, lineis duabus internis parum distinctis, externa paulo elevata. Long. .20.

California, Mr. Rathvon. Also quite distinct: there is no conspicuous lateral tooth.

41. *Anoplitis quadrata*, (*Hispa quadrata* Fabr.) A specimen from California, not differing perceptibly from those found in Pennsylvania, was given me by Mr. Rathvon.

42. *Galleruca angularis*, supra ochrea, dense pubescens, haud subtiliter dense punctata, thorace inæquali, latitudine fere duplo brevior, antice posticeque transversim impresso, canaliculato, lateribus obliquis rotundatis, basi sinuata, angulis posticis acutis prominulis, elytris vitta laterali infuscata, guttis parvis remotis serie triplici ornatis, subtus nigra, pedibus flavis, antennis fuscis. Long. .22.

California, Mr. Rathvon. Allied to *G. guttulata*, but differs by the form of the thorax and by the black elytral dots being arranged in series.

43. *Coccinella lacustris* Lec. Puget Sound, Mr. Davidson.

44. *Chilochorus pleuralis*, hemisphericus, niger, subtiliter punctulatus, elytris macula rubra magna rotundata ante medium signatis, epipleuris antemedium late rufo-marginatis, parapleuris rufis. Long. .26.

California, Mr. Rathvon. Larger than *C. bivulnerus* and *C. fraternus*, and differing from both, not only by the red spot being situated before the middle of the elytron, but by the abdomen being entirely black.

On motion, it was resolved that a committee of five be appointed to take measures for the formation of a permanent fund for the purposes of the Academy, and that the plan adopted by them be reported to the Academy for approval at the next meeting for business.

March 1st.

Vice-President BRIDGES in the Chair.

Fifty four members present.

Dr. Robert E. Rogers exhibited Richie's modification of the Rühmkorff induction apparatus, and the modification of the ordinary electrical machine, by Prof. Wagner, of Vienna; in the original machine a large circle of wire carefully insulated is attached to the prime conductor; Dr. Rogers replaced this by hollow globes of glass silvered on the inside, and showed that the power of the machine was thus greatly increased.

On leave granted, the report of the Biological Department of the last month was read and ordered to be printed.

March 8th.

DR. HAYS in the Chair.

Thirty-five members present.

A specimen of *Lepidosteus bison*, taken at Bombay Hook, on the Delaware River, was presented by Mr. Andrew Vanderslice.

[March,